

GS04 12

GS04 13

GS04 16

GS04 17

UP TO **68 L/MIN**

AND **210 BAR**

18 USGPM

3000 PSI



POPPET TYPE

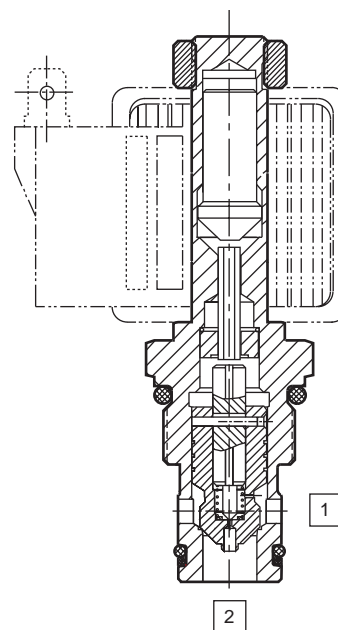
2 Position 2 Way

Normally Open

- High flow capacity with reduced space requirements.
- One piece cartridge housing ensures internal concentricity.
- Coil: Waterproof, hermetically sealed, requires no O'Rings; Interchangeable with 02 and 06 series poppet valves; Symmetrical coil can be reversed without affecting performance.

OPERATION

De-energized the pilot is held off its seat via a light spring and the poppet moves freely to allow flow from the side to nose port. Pressure on the nose port forces the poppet to close giving only restricted flow (without the free reverse flow feature). **Energized** the armature pushes the pilot and poppet onto their seats. Pressure on the side port firmly closes the poppet. Pressure on the nose port lifts the poppet and allows free flow.



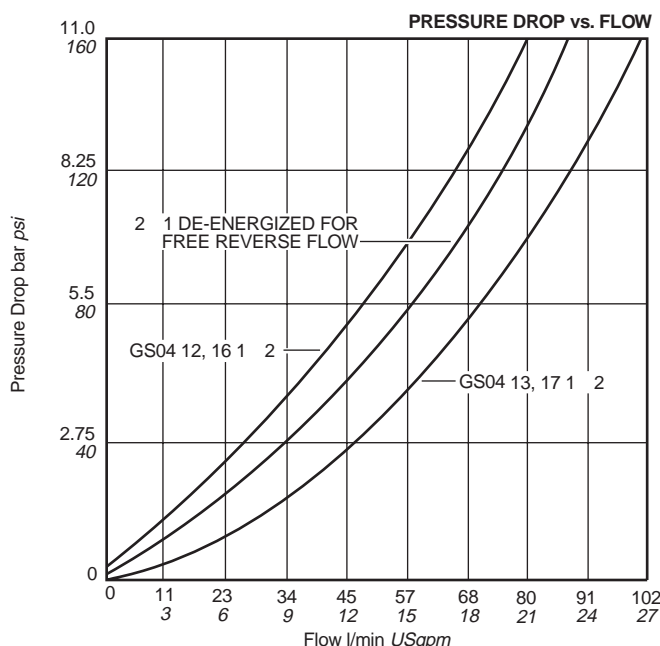
PATENT #5,002,253

SPECIFICATIONS

BASIC MODEL NUMBER	RESTRICTED REVERSE FLOW		FREE REVERSE FLOW	
	STANDARD GS04 12	HIGH FLOW GS04 13	STANDARD GS04 16	HIGH FLOW GS04 17
SYMBOL				
NOMINAL FLOW AT Δp = 5 bar 70 psi	50 l/min 13 USgpm	68 l/min 18 USgpm	50 l/min 13 USgpm	68 l/min 18 USgpm
PRESSURE	210 bar 3000 psi			
FUNCTION	FREE FLOW 1→2 AND RESTRICTED FLOW 2→1 WHEN SOLENOID IS DE-ENERGIZED		FREE FLOW IN BOTH DIRECTIONS WHEN SOLENOID IS DE-ENERGIZED	
RESPONSE TIME AT NOM. FLOW & PRESS.	OPEN 100 m. sec. CLOSE 70 m. sec.			
MAX INTERNAL LEAK AT 210 bar 3000 psi at 38 cSt 180 SSU	0.33 ml/min 5 drops/min			
SERIES CC COIL WATTS. (100% DUTY CYCLE)	14w ('S' Coil)	19w ('P' Coil)	14w ('S' Coil)	19w ('P' Coil)
MIN AMPERAGE TO OPERATE VALVE AT MAX RATED PRESSURE & FLOW	75% OF NOMINAL AMPERAGE, DETAILS: COIL DATA SHEET page 204			
INSTALLATION	UNRESTRICTED			
FLUID *	MINERAL OIL OR SYNTHETIC FLUID WITH LUBRICANT PROPERTIES			
IDEAL VISCOSITY *	15-50 cSt 80-230 SSU			
SEAL MATERIAL/TEMPERATURE *	NITRILE (Std.) -30°C to +100°C BUNA-N -20°F to +210°F VITON -20°C to +150°C -4°F to +330°F			
FILTRATION *	25 MICRONS (Nom.) OR BETTER			
CART. WEIGHT	0.15 kg 0.34 lb			
COIL WEIGHT	0.20 kg 0.44 lb			

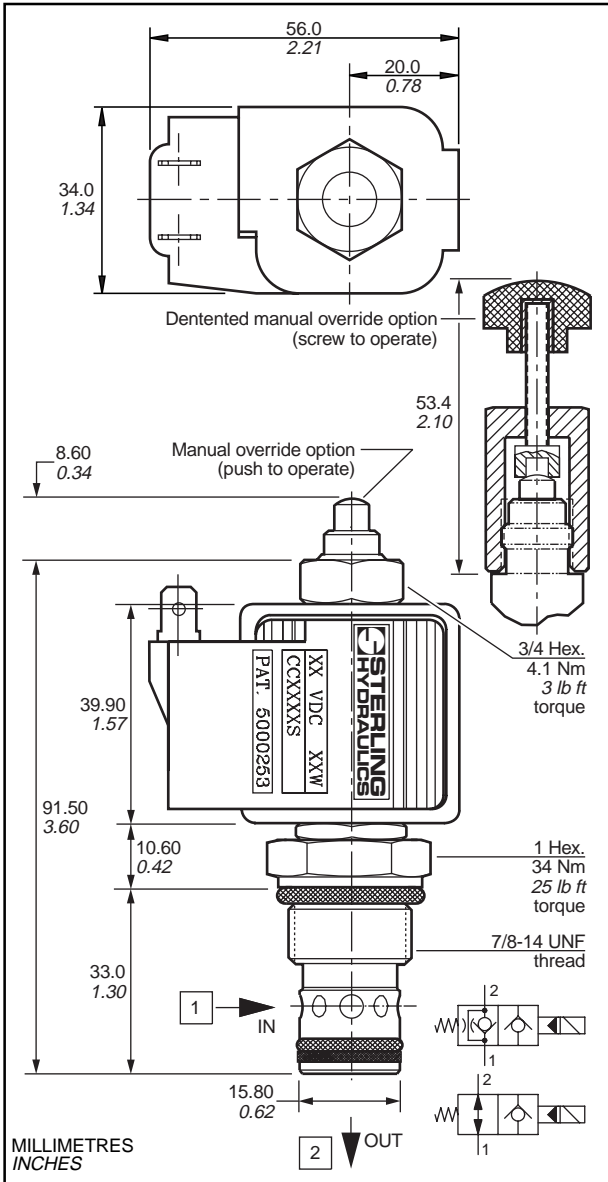
TYPICAL PERFORMANCE

Measured at 30cSt 140 SSU (For cartridge only)

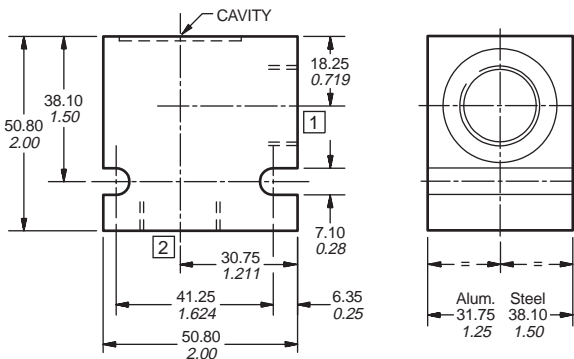


* **IMPORTANT:** See pages 582-583 for additional notes on operating conditions. Specifications may change without notice

DIMENSIONS



LINE BODY CAVITY CAV04-2: 7/8-14 Thread (10-2 Industry common cavity)



(LB10705/707 Shown)

CAVITY TOOLING FOR CAV04-2

	MM	INCH		
PILOT DRILL Ø	15.00	0.59	REAMER (STEEL)	8RM31079S
STEP DRILL	8DS31367		COUNTERBORE	-
REAMER (ALUM)	8RM31079A		TAP	8TP31201

MACHINING DETAILS PAGE 540

CARTRIDGE

GS04

C

PRESSURE AND PERFORMANCE FEATURES (Normally Open)	12	STANDARD ('S' Coil) Restricted reverse flow
	13	HIGH FLOW ('P' Coil) Restricted reverse flow
	16	STANDARD ('S' Coil) Free reverse flow
	17	HIGH FLOW ('P' Coil) Free reverse flow
MANUAL OVERRIDE (Option)	0	NOT REQUIRED
	1	MANUAL OVERRIDE
	2	DETENTED M.O. Part no. 900690
FILTER SCREEN (Option)	0	NOT AVAILABLE
SEAL MATERIAL	N	NITRILE <i>BUNA-N</i> (Std.)
	V	VITON

COIL

CC

COIL WATTAGE	S P	STANDARD PUISSANT	WATTAGE	
			S	P
COIL VOLTAGE*	012	12V DC	14w	19w
	024	24V DC	16w	19w
	115	115V AC	17w	22w
	230	230V AC		
COIL TERMINAL*	A	AMP JR. (CC Coil Only, DC Only)		
	AD	AMP JR. WITH 3 AMP DIODE (CC Coils only, DC Only)		
	C	DOUBLE LEAD WIRE WITH CONDUIT CONNECTOR (AC Only)		
	D	DIN 43650 (AC or DC, Supplied without DIN Connector)		
	L	DOUBLE LEAD (DC Only)		
	LD	DOUBLE LEAD WITH DEUTSCH CONNECTOR DT04-2P-EP04 (DC Only)		
	LE	DOUBLE LEAD WITH 3 AMP DIODE (DC Only)		
	PF	DOUBLE LEAD WIRE WITH PACKARD FEMALE WEATHER PACK CONNECTOR 1201 5792 (DC Only)		
	PM	DOUBLE LEAD WIRE WITH PACKARD MALE WEATHER PACK CONNECTOR 1201 0973 (DC Only)		
	S	DOUBLE SPADE (DC Only)		
W	DOUBLE SCREW (DC only)			
WE	DOUBLE SCREW WITH 3 AMP DIODE (DC Only)			
Y	SINGLE SCREW (Internally Grounded, DC Only)			

* ADDITIONAL VOLTAGES AND OTHER TERMINALS ARE AVAILABLE, FOR DETAILS PLEASE CONSULT FACTORY

COIL DETAILS page 204

LINE BODY

LB10

PORTING	705	1/2 SAE	708	3/4 SAE
	707	1/2 BSP	709	3/4 BSP
LINE BODY MATERIAL	A	ALUMINIUM (Anodised) TO 210 bar 3000 psi		
	S	STEEL (Zinc plated) TO 420 bar 6000 psi		

LINE BODY DETAILS page 513 for 708 / 709 consult factory

SEAL KIT

SK30503N-1 (NITRILE-BUNA N)
SK30503V-1 (VITON)

STERLING
HYDRAULICS

SOLENOID

PROPORTIONAL

DIRECTIONAL

DIVERTER

SHUTTLE

CHECK

RELIEF

SEQUENCE

PRESSURE

REGULATOR

LOAD

CONTROL

FLOW

LINE

CAVITIES

TECHNICAL

DATA